

METHOD OF PROCESSING AN INCIDENT PULSED UWB SIGNAL  
RECEIVED BY AN INDEPENDENT DATA DEVICE OF A WIRELESS  
DATA COMMUNICATION SYSTEM OF THE WPAN TYPE, AND  
CORRESPONDING INDEPENDENT DATA DEVICE

Abstract of the Disclosure

A method for processing an incident pulsed signal of an ultra wide band type received over a channel by a data device operating in a wireless data communications system is provided. The incident pulsed signal carries information within a super-frame structure. Upon reception of each super-frame structure by a data device, coarse synchronization is performed with another data device acting as a coordinator device for the wireless data communications system. The coarse synchronization uses a first training sequence. Upon reception of each frame allocated to the data device operating within the super-frame structure, channel estimation is performed using a second training sequence. The channel estimation also performs a frame synchronization.